Codec Complete

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Digital audio equipment usually contains an A/D and a D/A converter. In practice a codec is used for this. This is a chip where both converters are built-in and which often includes standard inputs and outputs for digital audio, such as I^2S. Apart from this codec there is often a requirement for a microphone input and headphone output as well.

Texas Instruments have made a new codec, the TLV320AIC28, which has an integrated microphone pre-amplifier and a 400 mW headphone amplifier. A few other practical functions have also been added to this chip, such as 2 I/O pins for use in push-button control, microphone detector, etc.

It is therefore extremely suitable for use in combination with headsets.

The chip can be controlled via an SPI interface, which means that most micro-controllers can communicate easily with this codec. As we said earlier, the audio interface can take an I^2S signal, but the audio interface is very flexible, as with many other codecs, and can cope with several other audio formats.

Should you be on the lookout for a codec and you intend to use a microphone input and headphone output, then this one makes an excellent choice. More information for this codec can be found in its datasheet at the website of Texas Instruments:

http://focus.ti.com/docs/prod/folders/print/tlv320aic28.html

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